

Wind and Water Hazards

Things to keep in mind to protect yourself and your family from various wind and water hazards. Be sure to check the weather information updates often.

Typhoon

Condition	Average wind speed (m/s)	Description
Slightly strong winds	10~15	Difficult to walk into the wind. Cannot hold an umbrella.
Strong winds	15~20	Cannot walk into the wind. Some may even fall down.
Very strong winds (windstorm)	20~25	Must stand firm not to fall down.
	25~30	Cannot keep standing. Any outside activity is considered dangerous.
Extremely strong winds	30~	

Okinawa, being located in a subtropical region, is victimized by typhoons year after year. Typhoon 14 that smashed into Miyako Island on September 10, 2003 was the largest in the last 30 years, with its instantaneous wind speed reaching 80 m/s, and caused considerable damage to the island.

Heavy Rainfall / Thunderstorm

Condition	Amount of Rainfall per Hour	Description
Slightly strong rainfall	10~20	Drenching rain
Strong rainfall	20~30	Pouring rain
Intense rainfall	30~50	Intense and relentless rain
Very intense rainfall	50~80	Waterfall-like rain
Fierce rainfall	80~	Difficult to even breathe

Heavy rain that began on June 4, 2006 in Nakagusuku Village continued for days, and in June 10 a road in Kitauebaru collapsed for about 80m. The rain continued to pour and the road collapsed again for another 5 m, and a mud flow came within 40 m of the Asato Community Center. 86 households in the area were instructed to evacuate due to this heavy rain. Those living in an area where the ground is weak should check the weather information often and be well prepared in advance.

1 Reinforce the House

Reinforce shutters, glass windows, fences, laundry poles, antenna, signboards, etc. If you have some time to prepare, get waterproof tarps and wooden blocks as well. Keep all flower pots in one place as they may be blown away by strong winds.



1 Heavy Rainfall and Flood Notice / Warnings

(1) Heavy rainfall notice

Amount of rainfall is greater than 40mm per hour

Soil water index basis 84

(2) Heavy rainfall warning

Amount of rainfall is greater than 80mm per hour

Soil water index basis 120

A flood notice will be given if there is a possibility of a flood-induced disaster. Is there a possibility of a flood-induced disaster that could cause serious damage, a flood warning will be given.



2 Stock Emergency Items

Make sure you have enough food, drinking water, flashlight, lighter, radio, and a basic first aid kit in a pack sack.



2 Stay Away from Sloped Areas and Cliffs

Sediment-related disasters are usually caused by heavy or intensive rainfall. If you observe any of the following, leave the area immediately for your own safety.

i. Small rocks are tumbling down the slope

ii. Visible cracks on the slope surface

iii. Springwater is flowing out from the slope surface

If an evacuation order is issued, evacuate without delay.



3 Pay Attention to Weather Updates

Get weather updates on TV and radio and also pay attention to new announcements in the area you live. You can also view updated information from here:

<http://www.jma-net.go.jp/okinawa/>

Okinawa Meteorological Observatory Website



3 Stay Clear of Thunderstorm

If you see a flash of lightning and hear the thunder rumble relatively soon afterward, it is obviously close. Return home and stay inside, unplug all electrical appliances, and stay at the center of a room. If you are outside, keep your head down and wait for the thunderstorm to pass.



When You Evacuate

- Dress as light as possible.
- Athletic shoes (sneakers) are recommended. Avoid boots or barefoot.
- Tie your group members with a rope and evacuate as one, especially children, to avoid getting lost.

- If you have to wade across a flooded area, use a stick to check the depth and for general safety.
- Protect your head from flying objects with a helmet, safety hood, or thick hat.
- Evacuate together with your neighbors.

Earthquake

Staying calm is the first step to safety. Pay close attention to post-quake tsunami updates.

- Point 1** **Stay calm and find a safe spot.**
Hide under a table or desk to ensure your safety first.



Point 6 **Evacuate on foot and keep your belongings to a minimum.**
Have all emergency items prepared in a pack sack. Do not use the elevator or a motor vehicle to evacuate.


- Point 2** **Don't let a fire start.**
Turn off the gas burners and the main tap. If a fire does start, cooperate with your neighbors and calmly put it off.



Point 7 **Stay away from narrow alleys, fences, and riversides.**
A quake may knock down fences and vending machines so stay away from narrow alleys and fences. Also, keep away from riversides and cliffs as they can fail.


- Point 3** **Open doors and windows to secure an exit.**
Make sure you have at least one exit. Some doors and windows may get stuck after the quake.



Point 8 **Beware of landslides and tsunamis**
If you are in a potentially dangerous area, follow the instructions of rescue workers and act swiftly.


- Point 4** **Unplug before you evacuate.**
Unplug all electric cables before you evacuate. This will prevent your house from catching a fire due to a short circuit or a knocked over electric stove.



Point 9 **Act on accurate information**
Do not be deceived by rumors or misinformation. Obtain accurate information on TV or radio.


- Point 5** **Don't scramble out the door.**
Watch out for falling objects and debris. Stay calm and alert.



Point 10 **Evacuate early and cooperate with others.**
Lend a helping hand to those in need (seniors and handicapped people, etc.), and cooperate with each other to evacuate early and swiftly.




Tsunami


A tsunami could swallow you in an instant. Evacuate expeditiously while you can.

- 1. Don't be fooled by the size of the quake.**
There have been cases in the past where small quake caused a tsunami. An M3 quake in northern Japan in 1896 caused a large tsunami in Okinawa. If you live in an area where a potential tsunami disaster is expected, evacuate without delay even if you felt little or no tremor.


2. Tsunami is not a myth.
A quake in 1983 took the lives of many in the Chubu area of mainland Japan. People in the area actually believed a myth that the coast along the Sea of Japan is free of tsunami. Do not leave yourself vulnerable by believing in groundless myths, and pay attention to tsunami updates.
- 3. Do not drive.**
Evacuating by car could create a massive traffic jam. Many people were victimized by the tsunami by getting involved in a traffic jam in the Tohoku Region Pacific Coast Earthquake. On the other hand, in some regions, people were able to survive by evacuating by car. However, basically evacuate by foot.



4. Higher, not farther.
Find a high ground when you evacuate. In case flooding has started, find a sturdy reinforced concrete high building.



Take advantage of lessons from the past!
In May of 1998, an earthquake with a magnitude of 7.6 hit just off the coast of Okinawa Prefecture's Ishigaki Island. Although the Meteorological Agency issued a tsunami warning, some of the residents actually grabbed their cameras and headed to the coast for a "tsunami tour" instead of evacuating. Fortunately, the size of the tsunami was small and the incident did not end in disaster, but it was only 5 years before at Okushiri Island where the same incident occurred and ended with over 200 people injured, missing, or dead. In order to minimize the potential damage a tsunami can cause, each and every one of us must first be aware of disasters and humbly learn the lessons from the past.



To Protect Our Lives From a Tsunami

To notify people who live close to the coastal area and who are visiting the coastal area.

On March 11, 2011 at 2:26 pm, a great earthquake with an MW of 9.0 (according to the Japan Meteorological Agency) hit the center of Sanriku. This earthquake caused a high tsunami to hit the center of the pacific coast, especially causing tremendous damage from the Tohoku district to the Kanto region.

The Japan Meteorological Agency officially named this earthquake "The 2011 Earthquake off the Pacific Coast of Tohoku."

Okinawa Prefecture also experienced a tsunami of 0.7m in Hirara of Miyako Island and 0.6m at Naha City, but nobody was injured.

The Japanese islands, including Nansei-shoto (the southwestern islands off of Kyushu and in the Okinawan archipelago) experience many earthquakes. In the past, in the past, in 1771 during the Meiwa period, a giant tsunami claimed approximately 12,000 lives in Ishigaki and Miyako Island.

Let us be conscious of the fact that a large earthquake could hit Okinawa, and raise our awareness of disaster prevention

If you are on the coast and feel a strong shaking, do not wait until a tsunami warning is given, but immediately evacuate the area. Also, pay attention to information announced by the Japan Meteorological Agency at the evacuation center. It is dangerous to determine that you are safe because the approaching tsunami appears to be small. Tsunamis will hit repetitively. Moreover, there is a possibility that the waves that come after the first wave will be much higher.

Also, even if the degree of a tsunami is 0.2m high, unlike normal waves, a tsunami is like a wall of water that pushes through everything in an instant and is extremely destructive. Extreme caution is necessary as a tsunami will sweep an adult right off their feet.

Courtesy of Okinawa Meteorological Observatory

Preparing For a Disaster

In order to protect yourself and your family from a disaster, it is crucial to prepare and talk about it with one another in advance. First determine the site you will evacuate to from your home and the route you will take to the evacuation site, then decide where and you will all meet and networks in case you get lost. It is also crucial to prepare necessary supplies at your home in advance for when disaster strikes so that you can act safely and accordingly.

Fire
Emergency

119

Police

110

Disaster Message Dial

171

Disaster Memo For Your Family

Start preparing today for a situation that may call for it.

Family Evacuation Site	
Meeting Place (in case you get separated)	
First Point of Contact	
Location of Your Disaster Readiness Kit	

Disaster Readiness Kit Checklist

Match or Lighter

Be sure there is lighter fluid in the lighter and matches are not moist. Waterproof matches are also sold.



Food Items

Instant-noodles, biscuits, canned foods, chocolate, etc.



※For families with infants, also prepare baby formula and a baby bottle.



Can Opener

A pocket knife with different functions may be convenient.



Radio

A radio is an essential tool in collecting information. One that comes with a flashlight may be useful.



Medical Items

Digestive medicine, disinfectants, bandages, medication for chronic illness, etc.



Clothing and Sneakers

Underwear, raincoats, jacket, towels, etc. Clothing to prevent injuries.



Valuable Items

Money, bank account book, ink, etc.



Drinking Water

About 3 liters per person, per day.



Candles

Keep candles in a plastic bag to prevent them from getting wet.



Helmet and Work Gloves

Something that will protect your head from falling objects. Prepare thick gloves to move rubble and for rescue work.



Sleeping Items

Sleeping bags, survival sheets, etc.



Flashlights and Batteries

Put it in a place where it is easily retrievable at night. Prepare extra batteries.



Disaster Readiness Kits should weigh about 10 kg for women and 15 kg for men.



Gather the items so that you do not have to worry about it in the time of need. Each family should consider the composition of their family and gather additional items that may be necessary.

List of Medical Facilities

Name	Address	Phone Number
Nakagami Hospital	610 Noborikawa, Okinawa-City	939-1300
Chubu Kyodo Hospital	6-25-5 Chibana, Okinawa-City	938-8828
Chubu Tokushukai Hospital	2-1 Awase-Tochi-Kukaku-Seiri-Gigyochinai, Okinawa-City	932-1110

Lifeline Facilities

Name	Address	Phone Number
Okinawa City Hall		939-1212
Disaster Prevention Division	26-1 Nakasonecho, Okinawa-City	(ext:2047/2349)
Sewerage Division		(ext:2532)
Public Road Maintenance Division		(ext:2619)
Okinawa City Waterworks Bureau	5-28-1 Misato, Okinawa-City	937-6211
Okinawa Electric Power Company (Uruma Branch)	358-2 Esu, Uruma-City	0120-586-705
NTT West Japan Okinawa Branch	4-35-1 Shiroma, Urasoe-City	(no prefix) 113 From Cellphones 0120-444-113

Public Facilities

Name	Address	Phone Number
Okinawa City Hall		939-1212
Disaster Prevention Division	26-1 Nakasonecho, Okinawa-City	(ext:2047/2349)
Sewerage Division		(ext:2532)
Public Road Maintenance Division		(ext:2619)
Okinawa City Waterworks Bureau	5-28-1 Misato, Okinawa-City	937-6211
Okinawa City Board of Education	26-1 Nakasonecho, Okinawa-City	934-0044
Okinawa Police	2-4-20 Yamazato, Okinawa-City	932-0110
Okinawa City Fire Department (119)	5-29-1 Misato, Okinawa-City	929-1190
Okinawa Chubu Regional Public Works Office	1-6-34 Mihara, Okinawa-City	894-6510
Okinawa General Bureau South National Road Office Kadena Branch	282-1 Sunabe, Chatan-Town	943-6203
Okinawa Chubu Welfare Public Health Care Center	1-6-28 Mihara, Okinawa-City	938-9886

Mailmaga@Okinawa
Disaster Mail Service



9391212@jin2.jp

**Okinawa City Disaster
Prevention Division**

TEL(098)939-1212 FAX(098)934-0665
<http://www.city.okinawa.okinawa.jp>

This hazard map reflects information that has been collected up to the present. It is crucial that each and every person keeps in mind that floods, land and mud slides can happen in areas not show on the map.